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Free and Open Source Software – Effective Tool to Reduce/Overcome Software Piracy Rate in Central Asia

Intellectual Property Rights and Internet in Central Asia

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Content

- New Countries of New (Virtual) Silk Highway
  - Commons and Differences
  - ICT4D
- ICT for Development – Tajikistani Experience
- Software Piracy in Central Asia
  - IIPA and BSA Reports
  - ICT – luxury or tool?
  - Two ways of reducing software piracy
- FOSS as Enabler of Access to ICT
- Recommendations

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Central Asia

- The Post Soviet Central Asia consists of 5 landlocked countries that share a common history and are now situated in different level of economic development
- Over 50 million of population lives in the region. Most of them lives in rural area (rural population dominates in 4 countries – Kg, Tj, Tm, Uz)
- At least 4 of them consider ICT as enabler of their social and economic development
- Countries academic communities are actively involved in implementation of the regional ICT-oriented projects supported by international community.

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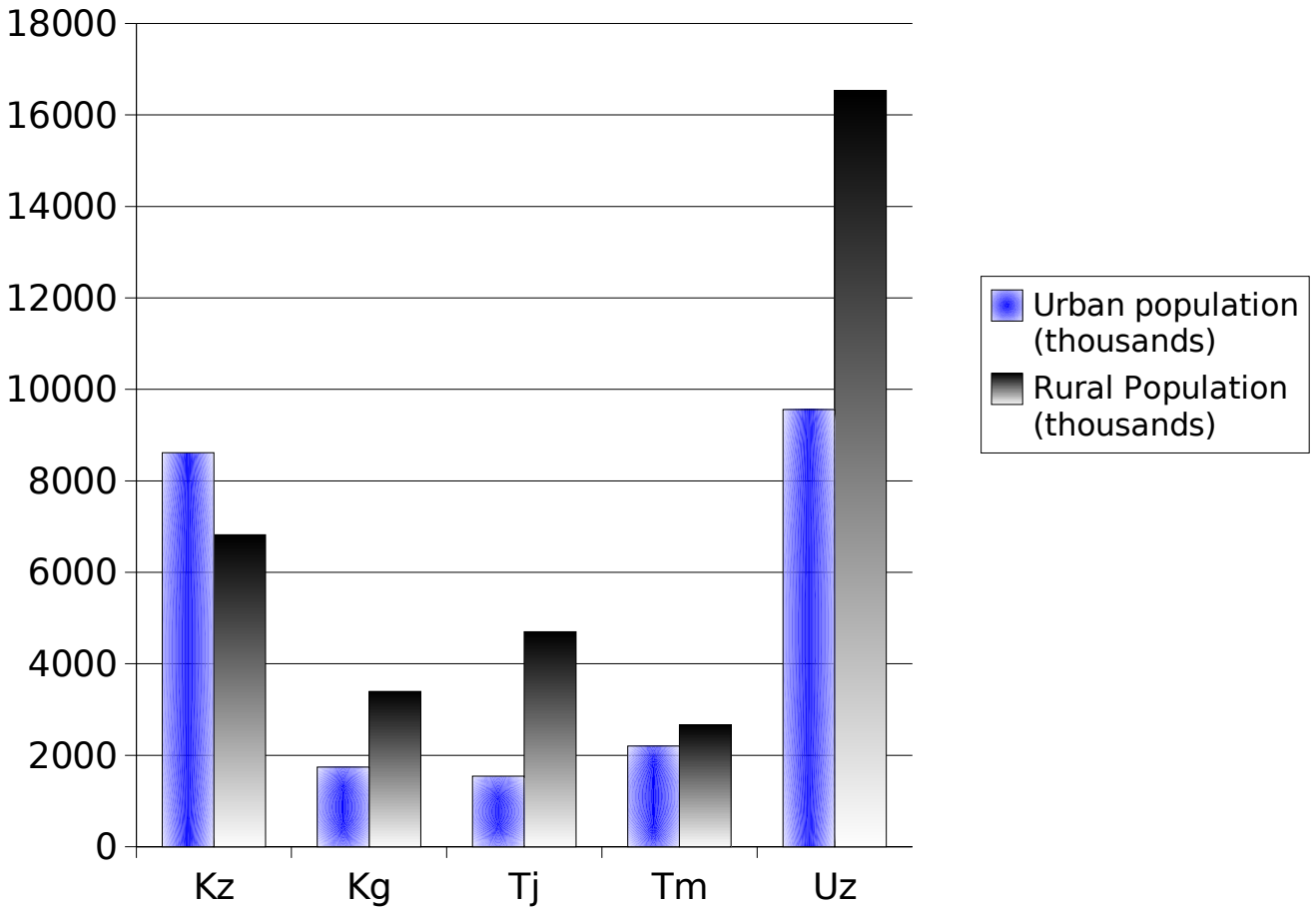
Rural and Urban Population of Central Asia



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New Countries of the Silk Road or the Silk Virtual Highway

- Regional ICT Projects:
  - Virtual Silk Highway, NATO Science Programme
  - Academy of Education Network, USAID
  - IREX/IATP program, USAID
  - Schools Online, US Department of State
  - Global Internet Policy Initiative
- Local ICT projects:
  - Access to Information, OSI
  - State Computerization program, different status in every country
  - National Research and Educational Networking development

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ICT for Development in the Region

Country	*ICT Strategy*	*Tax Incentives for ICT*
Kazakhstan	Presidential Decree on Technological Parks development	Within Technological Parks
Kyrgyzstan	State Strategy ICT for Development of Kyrgyz Republic	Import of telecommunications equipment, since June 2003
Tajikistan	State Strategy ICT for Development of RT	No
Turkmenistan	Presidential Program of "Social and Economic Reforms till 2010"	N/A
Uzbekistan	Presidential Decree on Computerization and ICT penetration	Import of computer equipment, software and computer literature, since May 2002

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ICT for Development

Tajikistani Experience

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Projects to implement e-Strategy

- State Program for Secondary Schools Computerization
- National Research and Educational Network (NREN) projects:
  - DuSciNet
  - Virtual Silk Highway (central eurasia regional project)
- Internet Capacity Building (OSI+UNDP+NATO)
- Schools on-line Project funded by USA DoS

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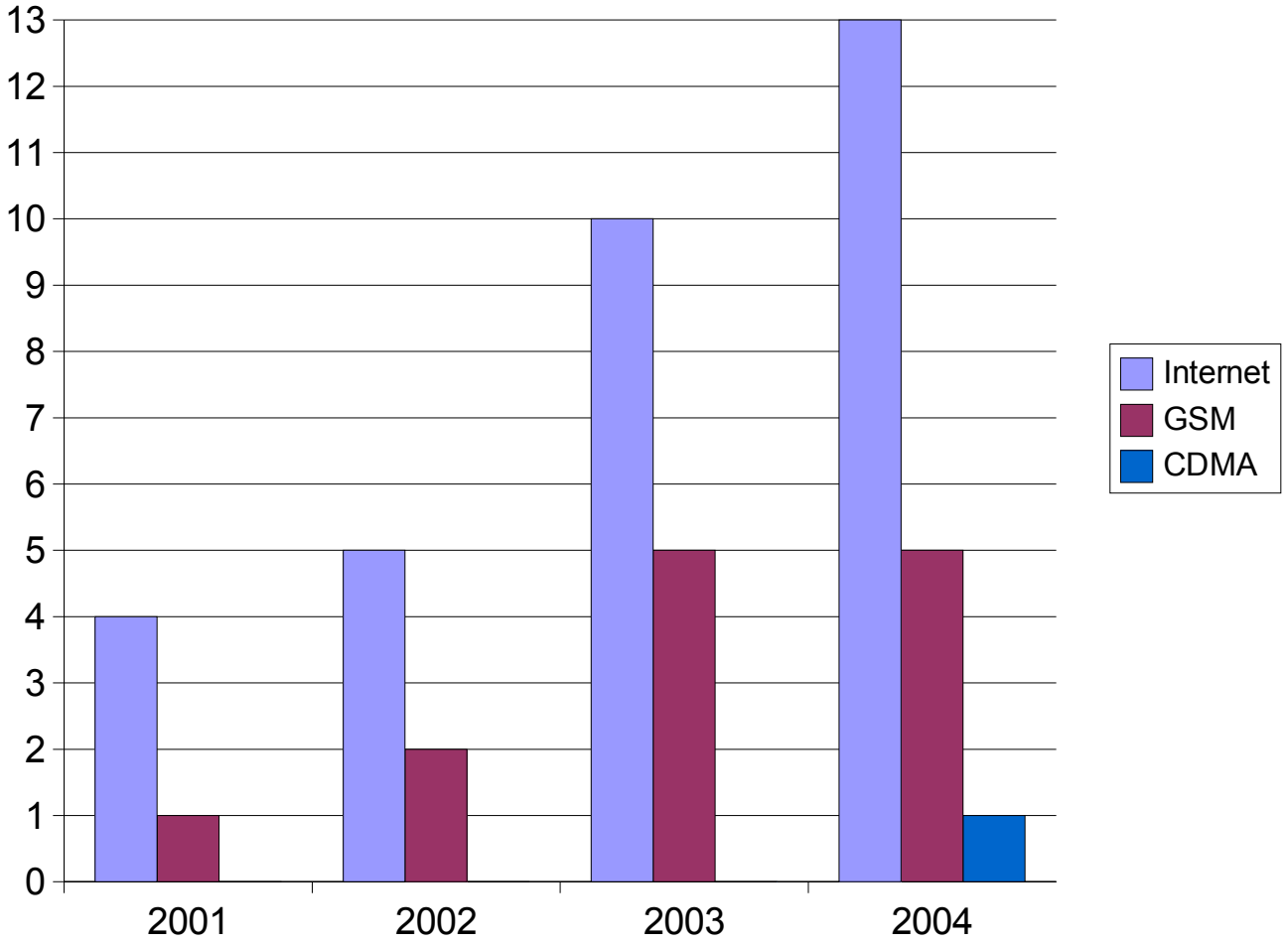
ICT Service Providers in Tajikistan



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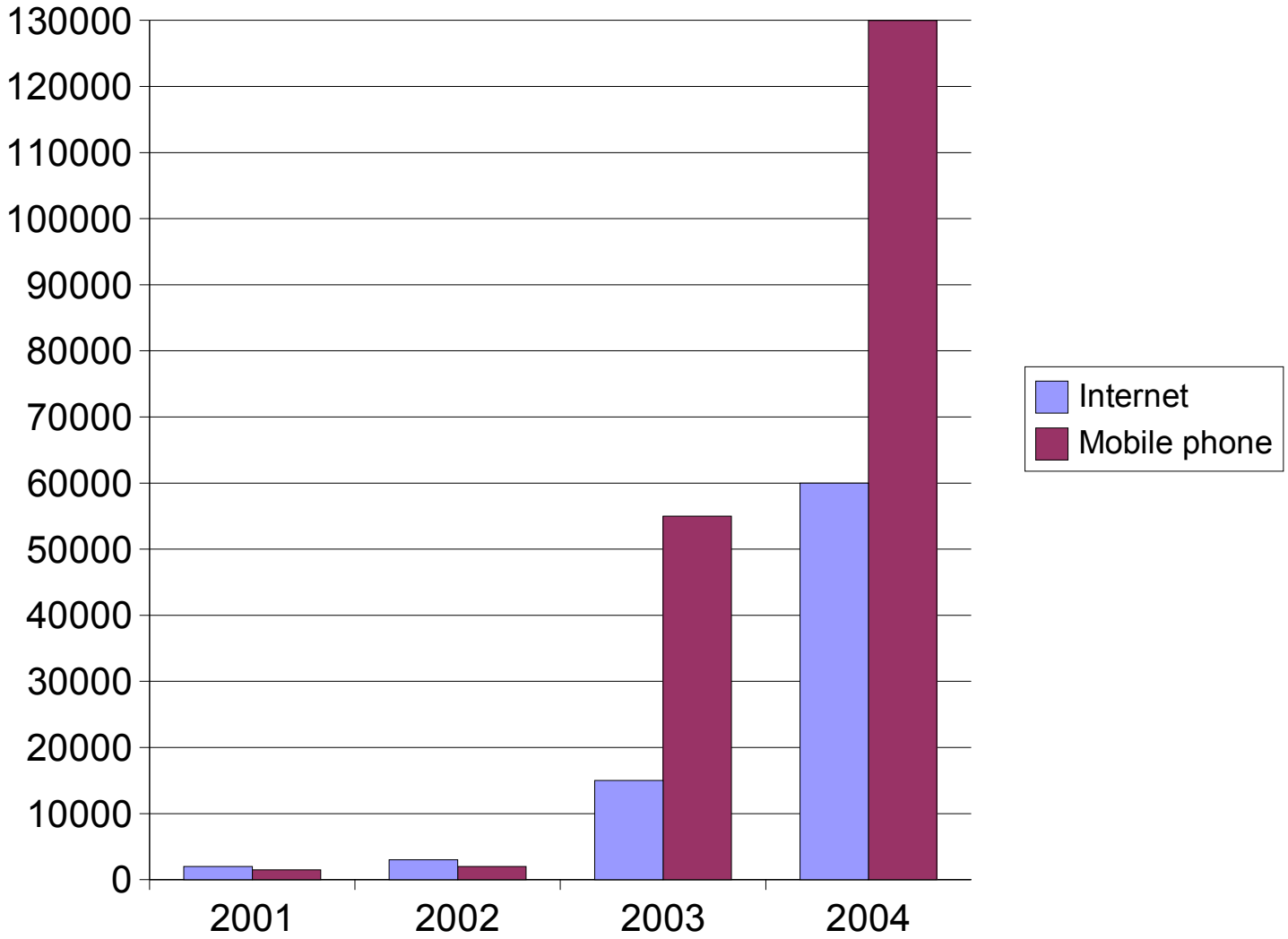
ICT Users in Tajikistan



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State Computerization Program, 2003 - 2007

- Over 3000 Secondary schools will have at least one computer class equipped with 8 or 10 PCs
- Overall cost of the project is $20 million US
- Overall number of PCs supplied to schools will be 28500
- School IT curriculum, ratified by the Ministry of Education, is focused on proprietary software
- 1 PC = $20,000,000/28500 = $702 per PC

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Overall cost of PC

- Developed countries
  - Hardware + software
- Developing and transitional countries
  - Hardware
  - Software is free of charge (unlicensed proprietary software is widely available)

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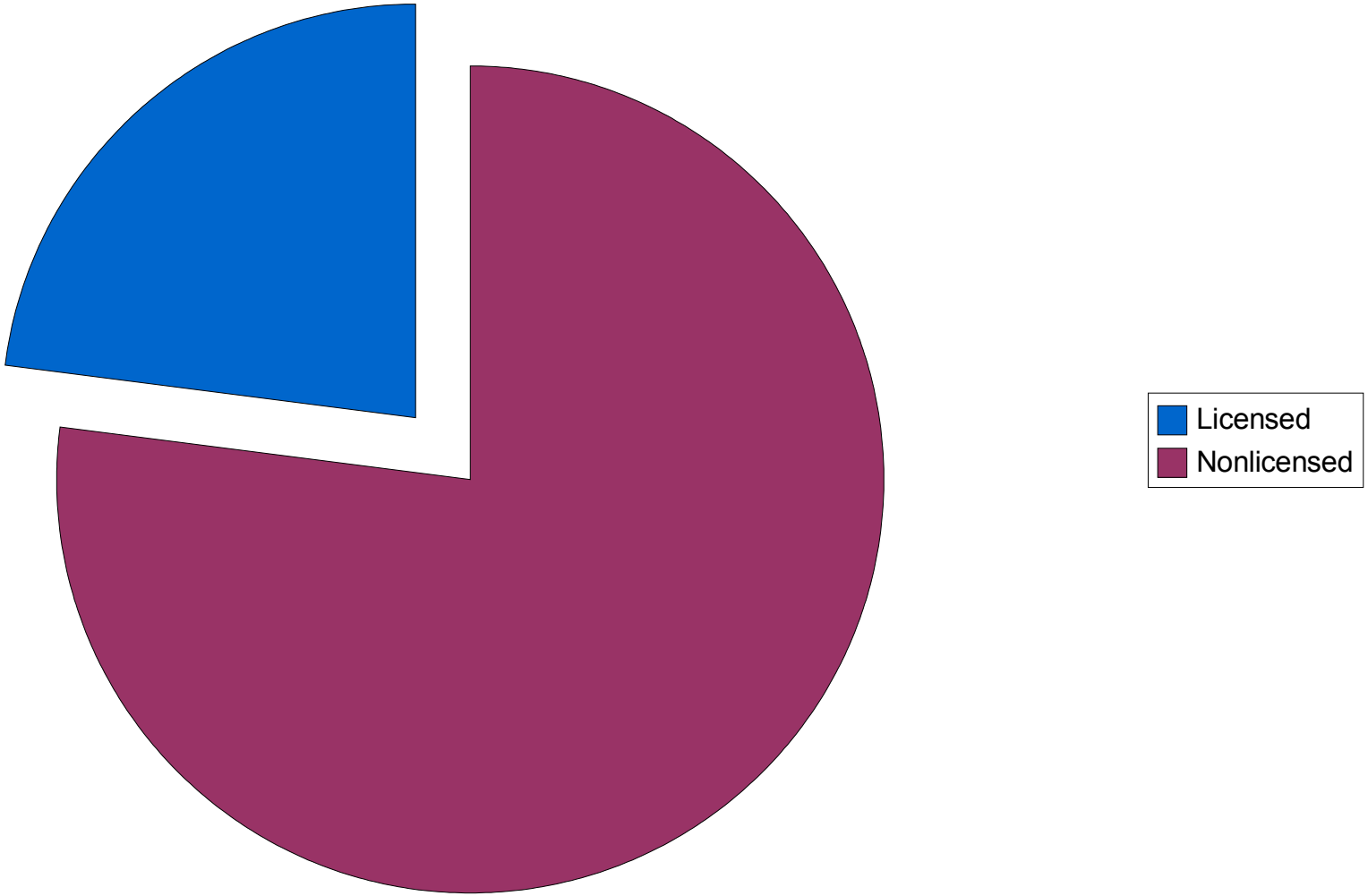
Software License issue in Schools



Civil Internet Policy Initiative, Tajikistan, November 2004

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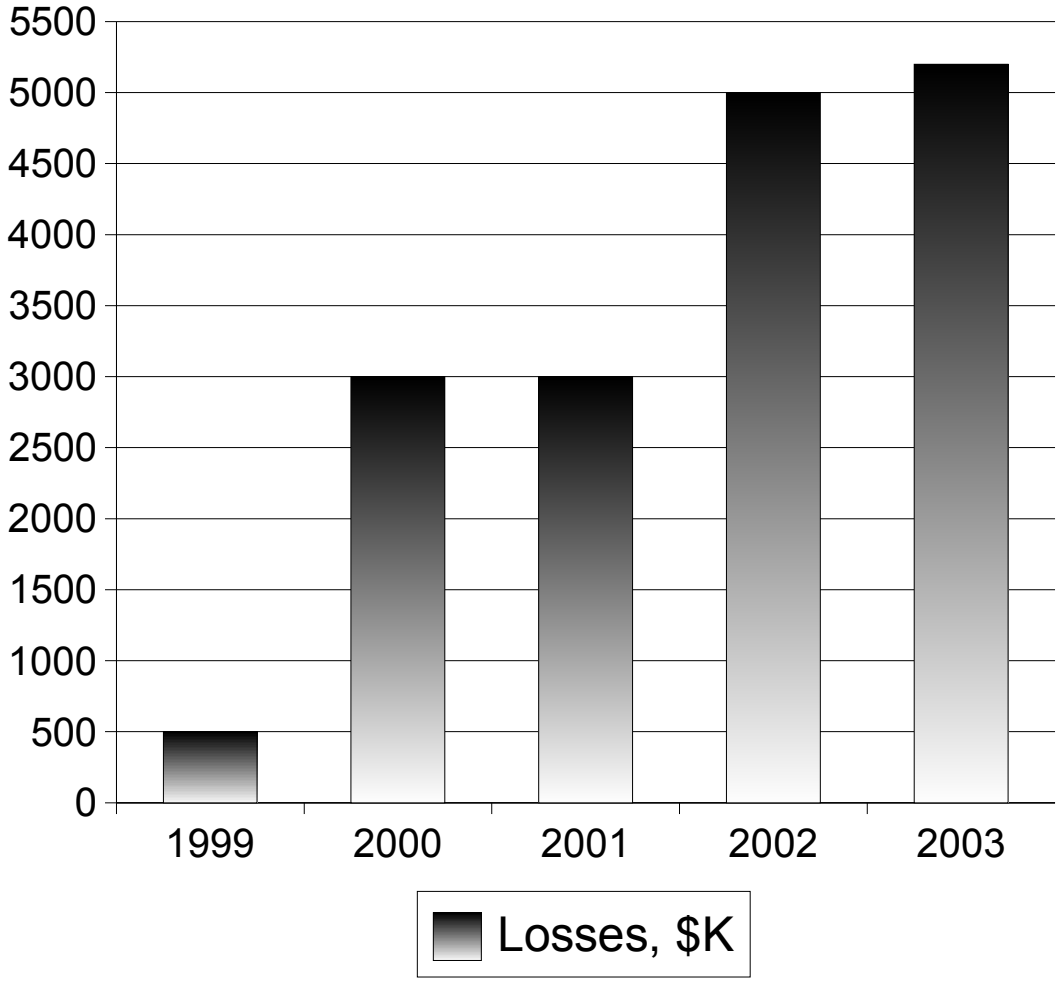
Losses of IP owners in Entertaining industry in Tajikistan



Special 301 Report, International Intellectual Property Alliance

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Treatment that is worse than Disease

- Many projects are concentrated on technical part of infrastructure with less attention to software, assuming that it either costs nothing or is part of hardware cost
- Funded by the International organizations many ICT projects for academic community are mainly proprietary software-focused that makes their self-sustainability doubtful in the future.
- Many utilized applications are accessible neither by content (localized) nor by price to main part of population

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Unlicensed Software Distribution in Central Asia

Tools against Software Piracy

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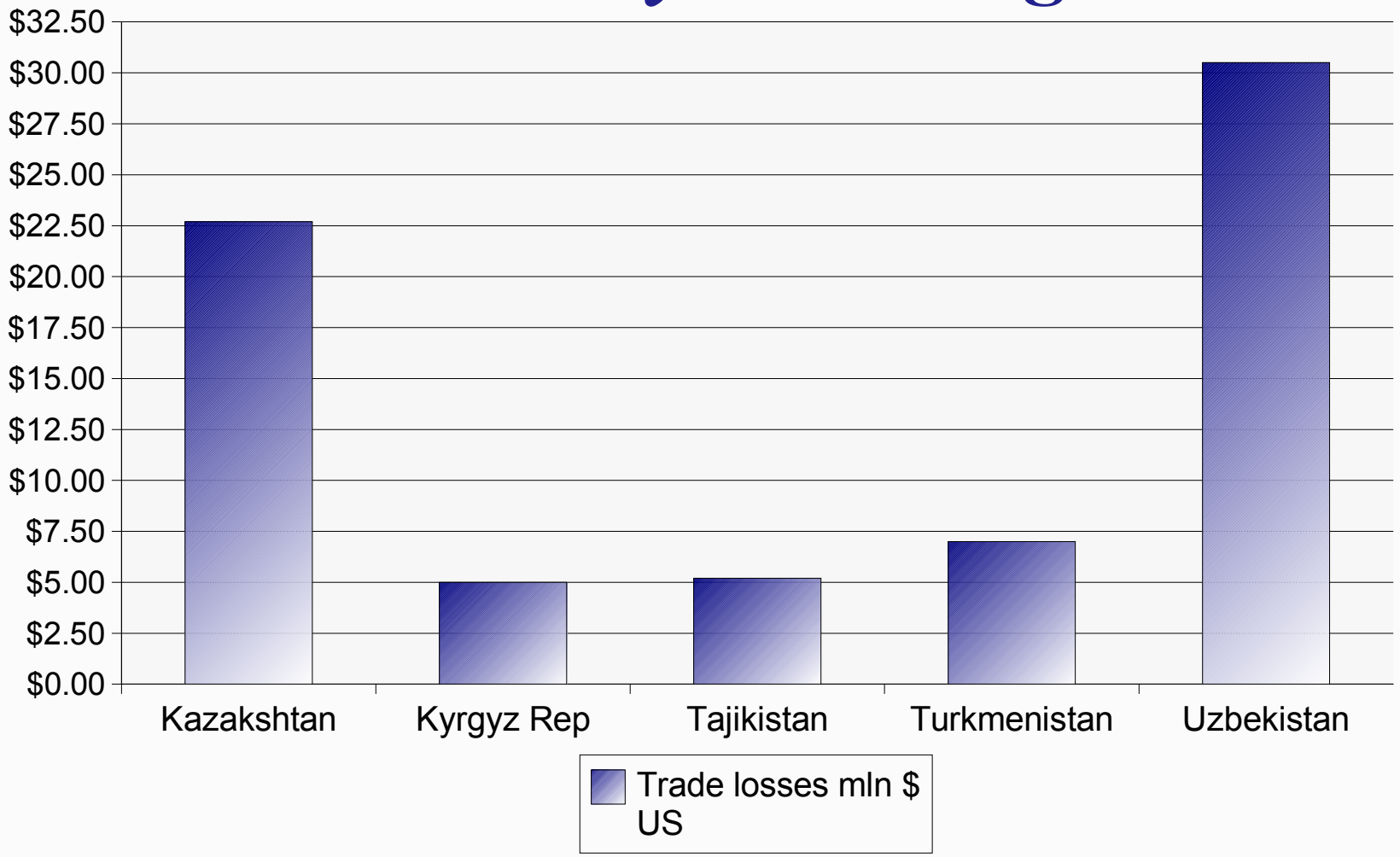
Losses of IP owners in Entertaining Industry in the region



Special 301 Report, International Intellectual Property Alliance , 2003

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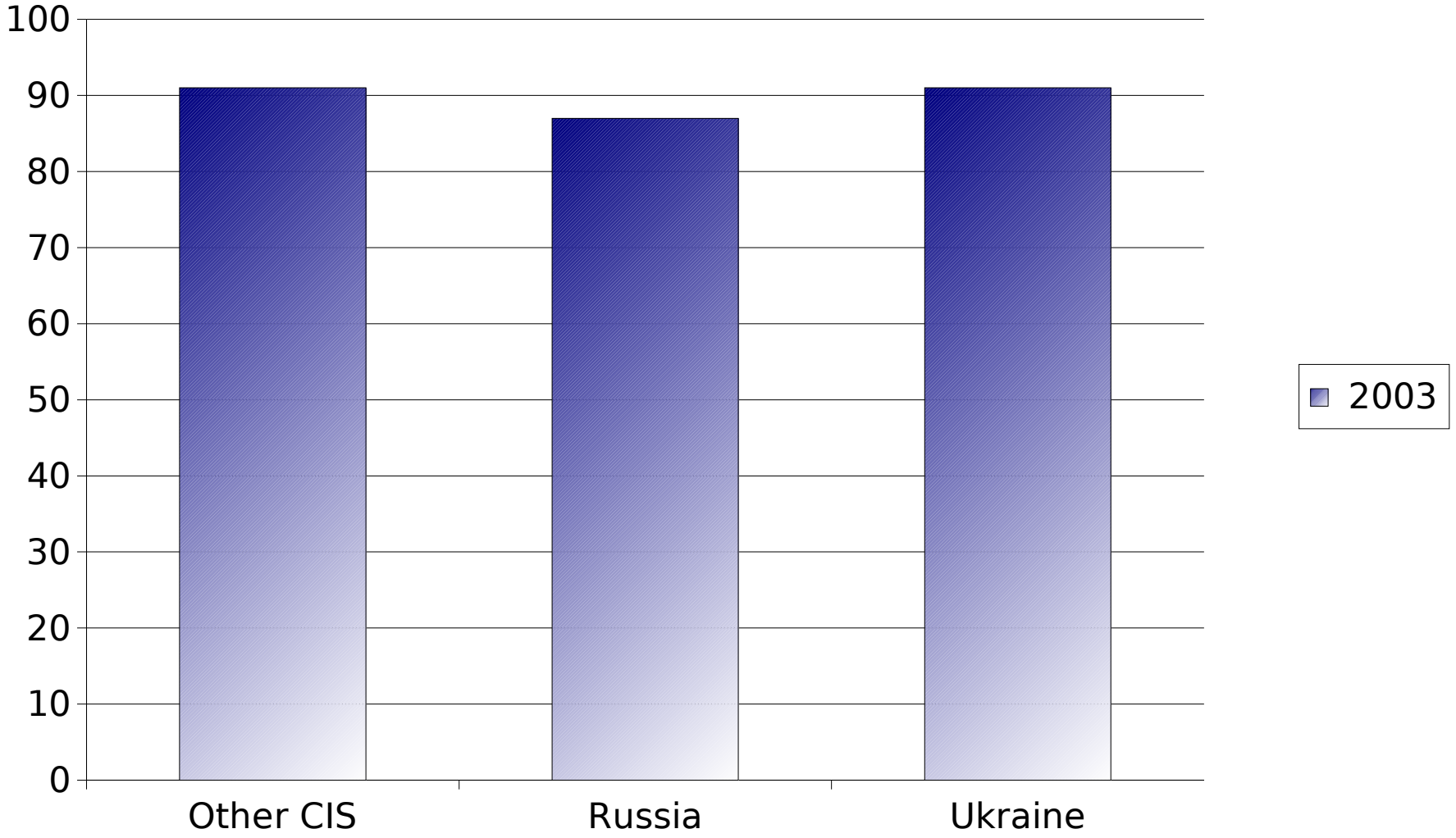
Illegal Software Distribution Rate, %



Business Software Alliance, 2003

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IIPA 2005 Special 301 Report Recommendations

- ...The U.S. Government should block accession to the WTO of Az, By, Kz, Tj, Tm, and Uz (as well as Ru and Ua) because the legal and enforcement regimes in each of these countries is not in compliance with WTO TRIPS obligations
- ...Actions to be Taken by the Governments of These Countries:

  Enacting and enforcing effective border measures to stop the export and import of illegal material;

  Commencing raids and following up with criminal prosecutions against pirates engaged in commercial distribution...

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Harm of Unlicensed Software Distribution and Utilization

- Technological dependence, or lock-in situation
- Weak developed local contents
- Weak developed local developers community
- Growth of digital divide
- ICT tends to become a luxury but not a tool for development when it comes to respect the rules of IPR law

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So Harmful and So Popular?

- Consumers Unawareness on
  - Computer = hardware + software
  - "Computer programs, whether in source or object code, shall be protected as literary works under the Berne Convention" (*article 10, WTO TRIPs agreement).* Software as an object of IP requires a license (or a license agreement)
- Cost of Software is higher than a local consumer can afford
- IT vendors as well as fiscal public organizations are interested in supplying proprietary software since market demands it.

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Which CD with MS Windows XP Professional would you buy?

City	Licensed copy	Unlicensed Copy
Almaty	$100.00	$3.00
Tashkent	N/A	$3.00
Dushanbe	N/A	$3.00
Moscow		$3.00
Amazon.com Dec. 14, 04	$279.99	N/A

… if your salary is less than the cost of software?

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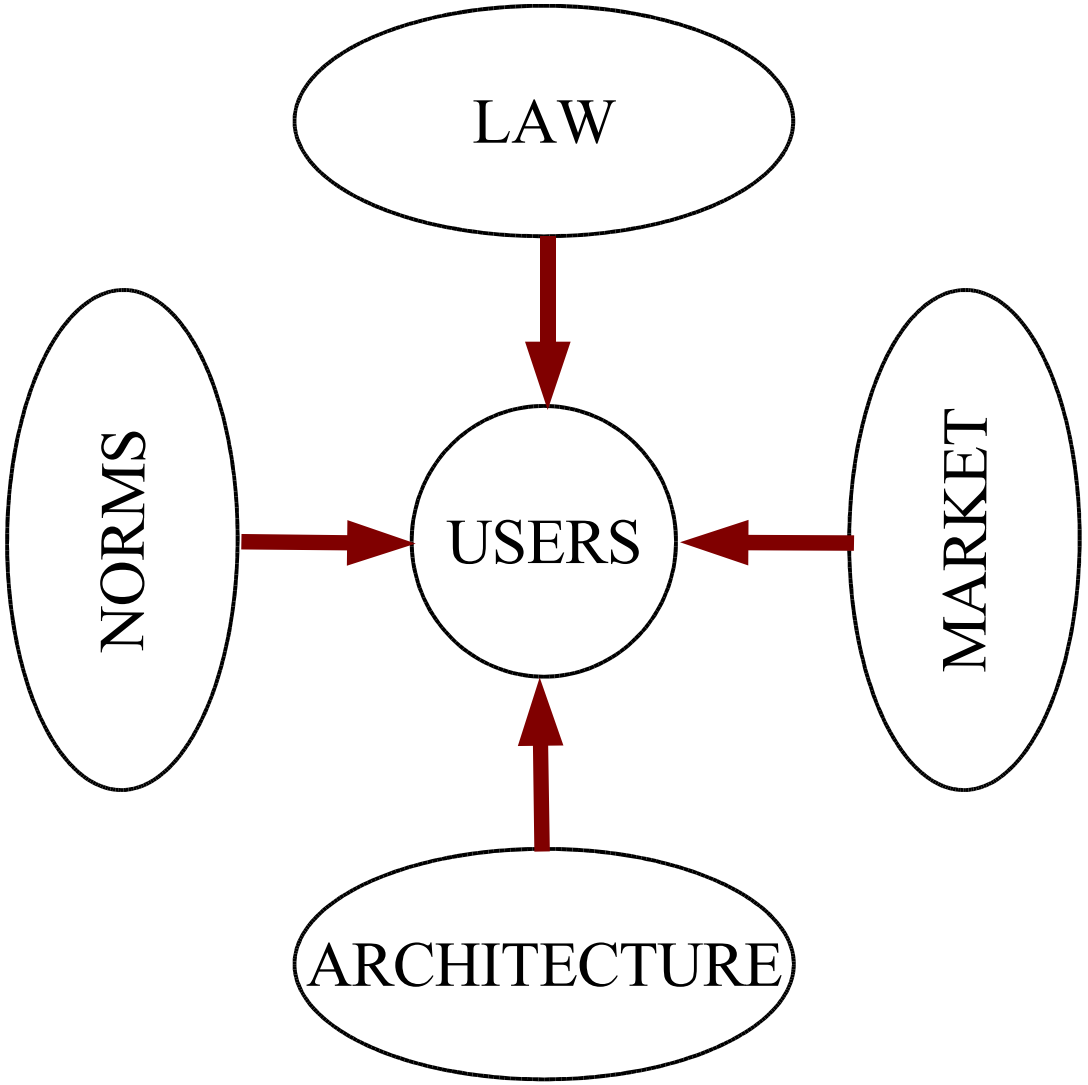
Lessig's Model of Regulation



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Norms and Values

- Norms – a modality that is dominating in Tajikistani society in regulating software users.
  - I will share an application that I have a license to use with my relatives, friends and anyone else in need, whom I like. Though I know that it is illegal.
- It seems that the proprietary companies license agreement scheme that works in one place cannot work in another.
- Hence a different approach is needed...

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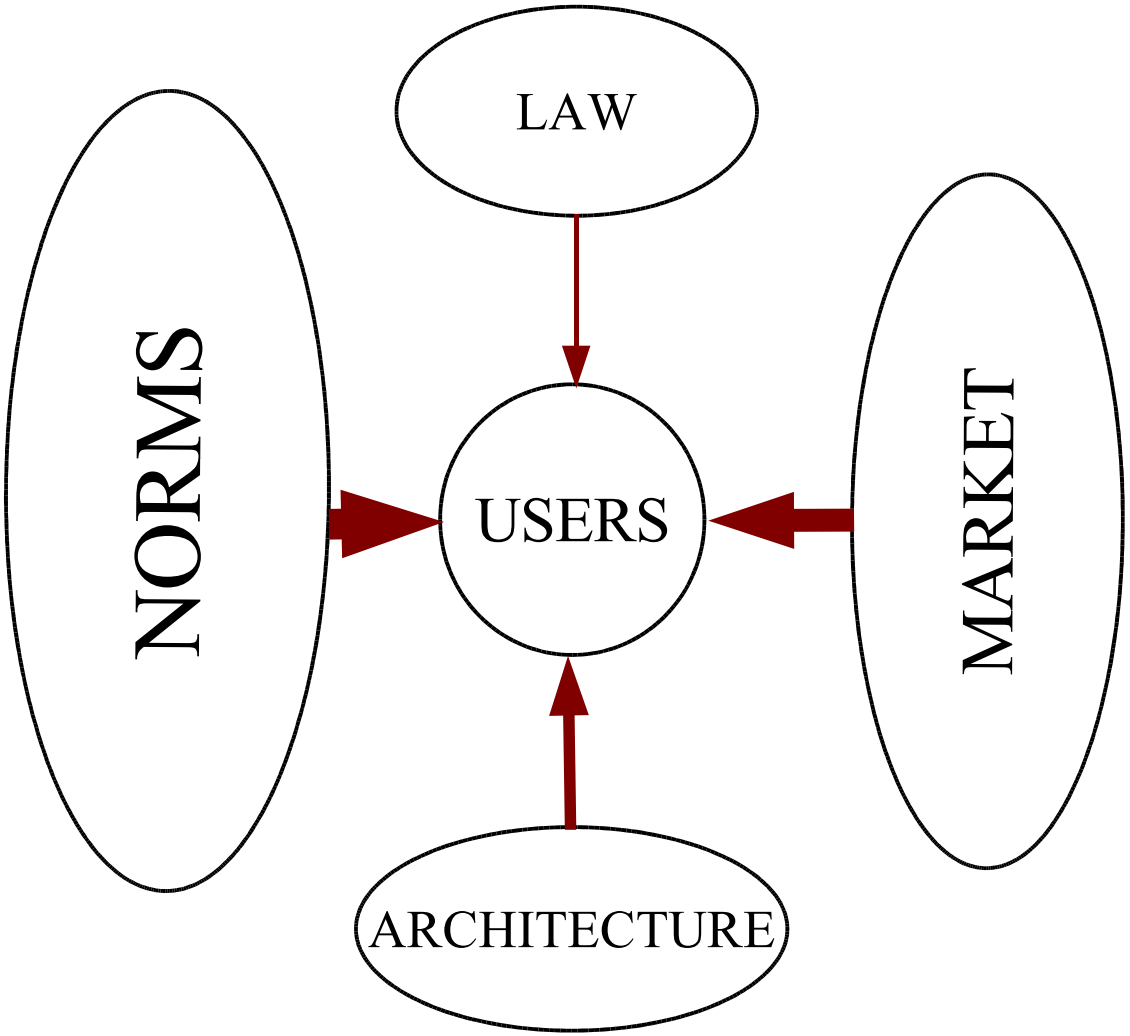
Regulation in Tajikistan



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Ways to Reduce/Overcome Unlicensed Software Distribution

- Using licensed copies of Proprietary Software
- Free and Open Source Software utilization

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The Principal Difference of these approaches

- Closed Source Proprietary Software
  - Every licensee is a potential "pirate"
- Free Open Source Software
  - Every licensee is a potential licenser

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Richard Stallman: "Free Software is about Freedom"

- Freedom in use
- Freedom in distribution
- Freedom in creating/modification
- Freedom in sharing what you as a developer created/modified

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Types of Business Software
(William Fisher)

Software attributes	*Proprietary*	*MS Shared Source Initiative*	*FOSS*	*BSD*	*Public domain software*
Source Code available?	no	yes	yes	yes	yes
Modification permitted?	no	yes	yes	yes	yes
Reproduction permitted	no	no	yes	yes	yes
Share and share alike?	N.A.	N.A.	yes [GPL]	no	no
Attribution required?				yes	no

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FOSS as Enabler of Access to ICT in Developing and Transitional Countries

Societal Impact of FOSS

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ICT Can Work for Development, if...

"The unique characteristics inherent in ICT and the evidence from both micro-level initiatives and national ICT approaches suggest that a development-focused ICT strategy that leverages the powerful synergies of ICT as an enabler of social and economic development can lead to the creation of a development dynamic. The lessons learned point to five important interrelated areas for strategic intervention: policy, infrastructure, enterprise, human capacity, and content and applications. ...An approach which addresses several components of the dynamic is likely to be more effective than one which focuses in just one area"

Creating a Development Dynamic
Final Report of the Digital Opportunity Initiative,
July 2001

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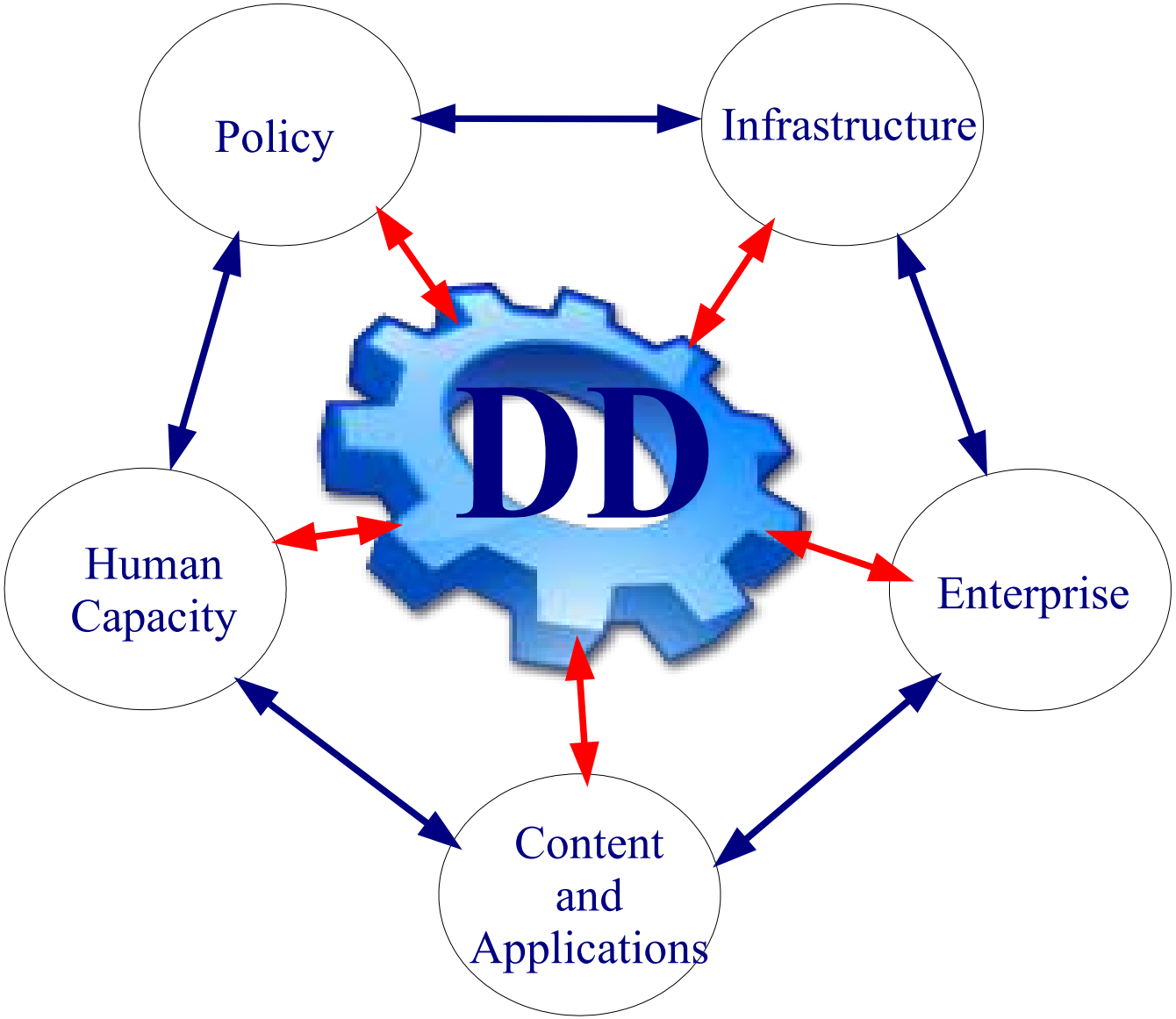
Development Dynamic



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FOSS and DD

- DD cannot work in Tajikistan (it might be the same in other countries), because at least 2 components are not developed enough. These components require huge investments with long-term return, which make them unattractive for investors (Goverment, SME). They are:
  - Human capacity (ICT users and experts)
  - Contents and applications
- Availability of FOSS applications by price and by content can help to increase the number of users throughout the country that most likely will contribute in development of local content, hence more demand for local applications.
- Providing access to ICT for majority of population in their native language will enhance the growth of local experts

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FOSS Advantages

- Efficient tool against Software illegal distribution without loosing access to Technologies
- Promotes Creativity and New Jobs Creation
- Inexpensive tool of skills development (user skills as well as programming skills)
- Enabler of local developers community growth
- Promotes Transparency. For example building trust in e-governance
- Enhances to narrow digital divide

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FOSS Advantages (continue)

- Information Security and Technological Independence
  - Ministry of Defence of Russian Federation (МСВС, УТЕС-К, ИВК Кольчуга)
- Local intellectual property resources development
- Growth of export potential (Software, technologies, experts)
- Local content and applications development, hence accessible to majority including rural population
- Develop culture of respect to the rules of law

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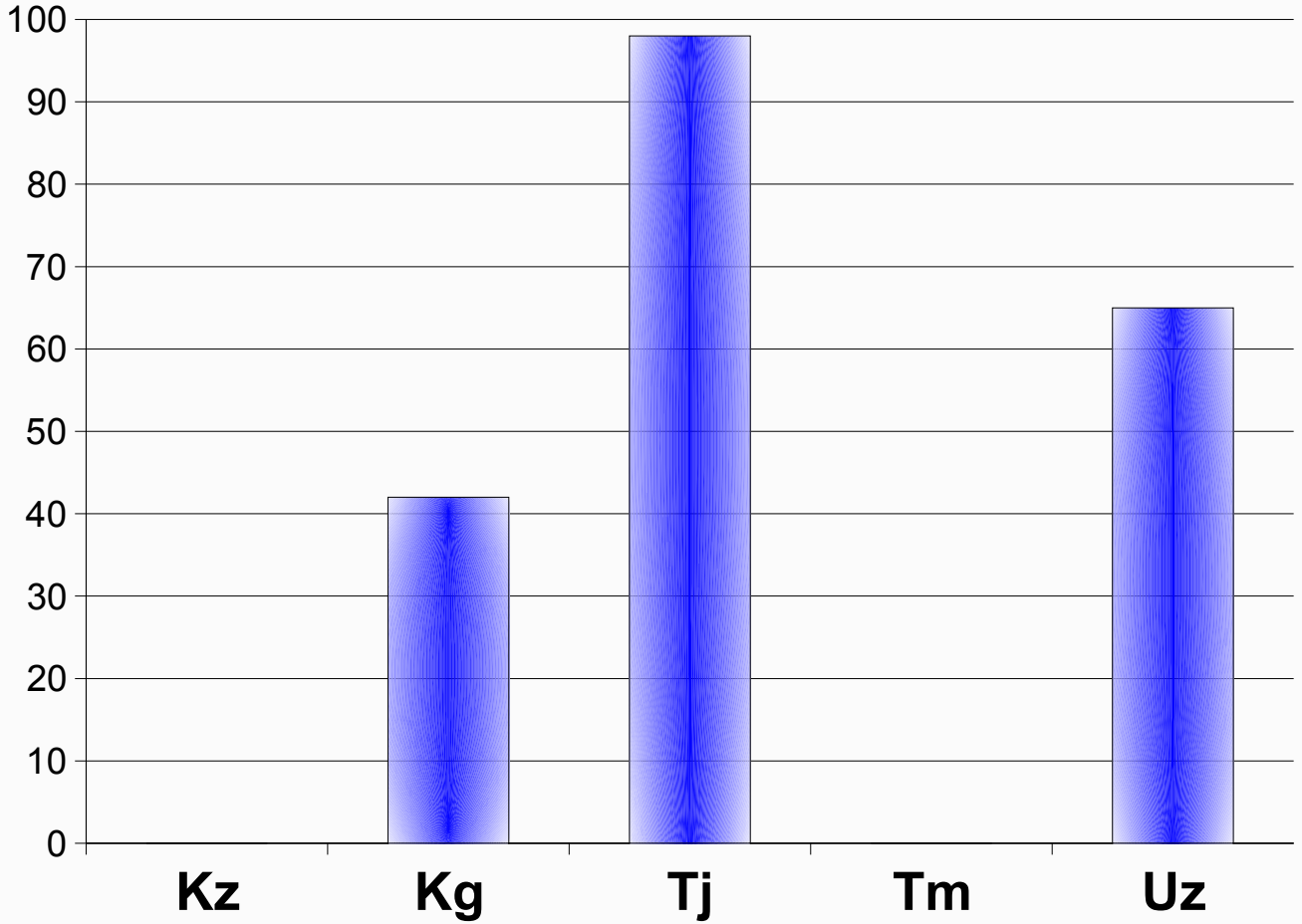
Initiatives to utilize FOSS

- Kz – Technological Parks
- Kg – Public Fund Open Technologies, FOSS localization initiatives, partnership of OSI and CIIP
- Uz – IT University, well informed local developers community that has experience creating on the free software basis
- Tj – State Strategy considers FOSS as a tool to overcome digital divide, localization initiatives, partnership of OSI and local FOSS community

GNU/Linux Mandrake Localization Status in CA



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- Lawrence Lessig, Free Culture
- Rishab Ghosh, License fees and GPD per capita
  - http://www.firstmonday.org/issues/issue8_12/ghosh/index.htn
- Mr. Hilary Perraton, Central Asia: ICT Use in Education
- Eric S. Raymond, The Cathedral and the Bazaar
- Yochai Benkler, Coase's Penguin, or, Linux and The Nature of the Firm

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URLs

- http://www.opensource.org/
- http://www.opensource.org/licenses/gpl-license.php
- http://www.gnu.org/copyleft/gpl.html
- http://www.itk.ru/clip/gpllicense.shtml
- http://www.mandrakelinux.com/l10n/
- http://www.gnu.org/philosophy/schools.html
- http://www.perens.com/OpenStandards/Definition.html
- http://www.microsoft.com/licensing/resources/default.mspx
- http://www.microsoft.com/education/msitacademy/WorldWide/Default.as
- http://www.microsoft.com/piracy/YourPC.mspx
- http://www.amazon.com/
- http://www.iipa.com/
- http://www.bsa.org/
- http://www.wto.int/english/tratop_e/trips_e/trips_e.htm
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FOSS is not Panacea

- Most of FOSS software are not complete (90 % completed), but this is its real power. It is challenging to improve it, and make adaptation for local needs.
- FOSS enhances creativity, because it is based on freedom in use, modification, and distribution

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Recommendations

- Support Localization of the FOSS applications in the countries
- Promote FOSS as an alternative tool of access to technologies
- Usage of FOSS as a platform for training in educational establishment and e-governance development

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Advocating the Option

- IT vendors – very hard to be persuaded. Evaluation of the current market with threats and benefits for SME
- Government agencies, particularly Fiscal organizations can be easily persuaded by the market.

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Thanks!

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